
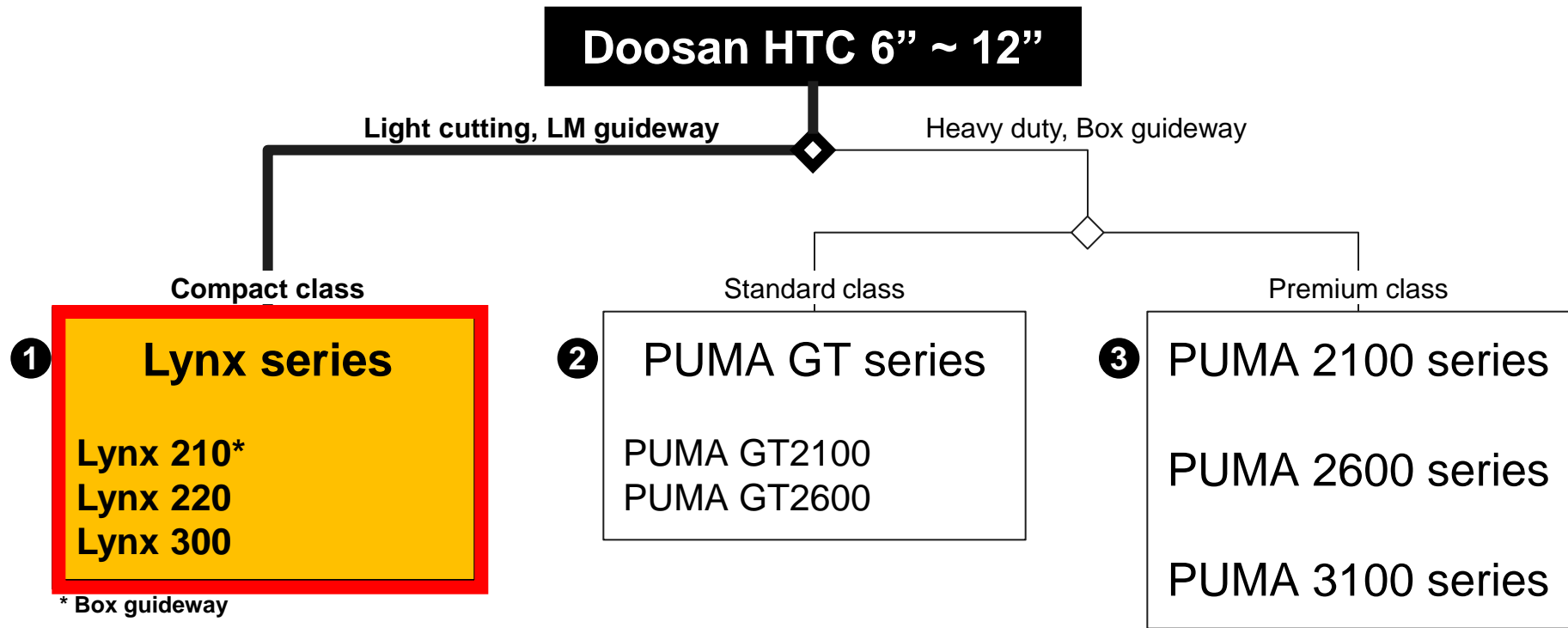


A-1. Horizontal TC

	a	b	c	d		e		f	g		
Chuck size (inch)	Small size HTC	Medium size HTC	Large size HTC	Multi-tasking HTC		Twin turret HTC		2spindle HTC	Aluminum Wheel turn HTC		
	Lynx series	PUMA GT series	PUMA series		PUMA SMX series	PUMA MX series	PUMA TT series	PUMA TL series	PUMA HT/QL series	PUMA AW series	
											
6	Lynx 210 Lynx 220A					MX1600	TT1500		HT230T		
8	Lynx 220B Lynx 220C	GT2100	PUMA 2100			MX2100	TT1800 TT2000	TL2000	H250T QL200H		
10	Lynx 300	GT2100B GT2600	PUMA 2600			SMX2500	MX2600	TT2500	TL2500	H310T QL300H	
12			PUMA 2600B PUMA 3100	PUMA 400A		SMX3100	MX3100				
15				PUMA 400B							
18					PUMA 600						
21				PUMA 400C PUMA 480							
24					PUMA 700						
32					PUMA 800						
Big bore				PUMA 480D (275mm)	PUMA 800B (375mm)						
Wheel dia.										AW560(20") AW660(24")	

a Small size HTC

Concept...



Lynx series _ Product line-up / Designation

Function

Chuck size (inch)	Bar working dia. (mm)	Max. turning dia. (mm)	Max. turning length (mm)	Gang X/Z axis	2 axis X/Z axis	M 2 axis + Milling	S 2 axis + Sub spindle	MS 2 axis + Milling + Sub spindle	Y 2 axis + Milling + Y axis	SY 2 axis + Milling + Y axis + Sub spindle
6	34	320	322		Lynx 220a					
			542		Lynx 220aL					
	45	280	300		Lynx 210A					
		320	322	Lynx 220G super	Lynx 220A					
			542		Lynx 220LA					
			290			Lynx 220MA			Lynx 220YA	
8	51	280	•M: 240 •S: 380 •Others: 300		•S: 525 •Others: 510					
			300							
			305							
	65	280	525							
			•2ax: 320 •M: 240 •S: 380 •Others: 300		•2ax: 305 •M/Y: 290					
			•2ax/S: 525 •Others: 510							
10	76	•2ax: 450 •M: 370	•2ax: 765 •M: 712							

※ Lynx 210A/B, Lynx 220aL/LA/LB/LC/LYA/LYC, Lynx 300/M: Manual tailstock as standard

※ Lynx 220a/A/B/C: Manual tailstock as option

※ Lynx 220G super/MA/MC/YA/YC: Tailstock not available due to no tailstock guideway

※ Lynx 220LSA/LSC/LMSA/LMSC/LSYA/LSYC: Tailstock not available due to the sub spindle

Upgrade

New

Lynx 220

[Suffix & Application] M : Milling, A/B/C : 6/8/8inch chuck size, L : Longer Z axis travel
S : Sub spindle, Y : Y axis w/ M

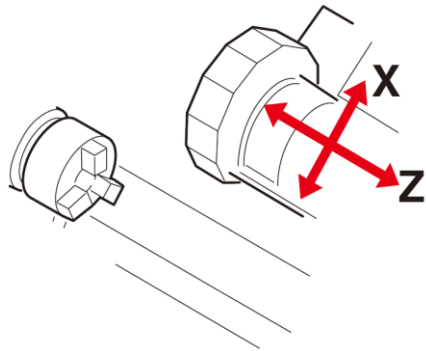
[Nominal Size Chuck size] 220 : 152/203mm (6/8inch), 300 : 254mm (10inch)

Lynx : Brand



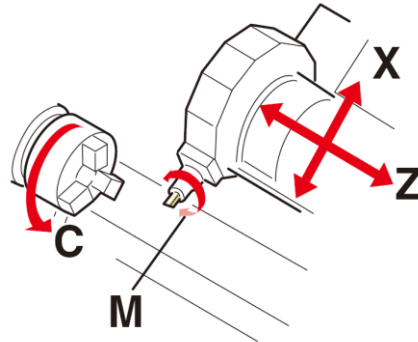
MODEL VARIATION BY FUNCTIONS

Turning



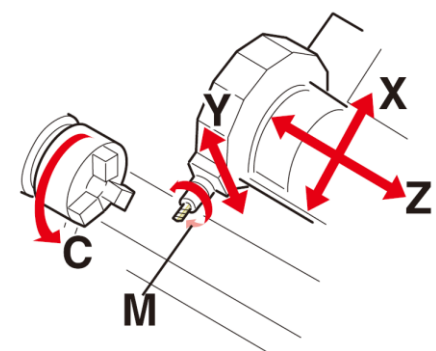
2-axis

Mill-turning

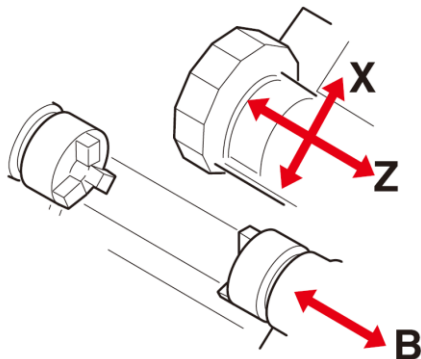


M

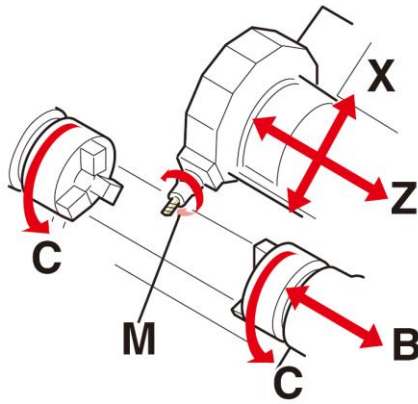
Y-axis mill-turning



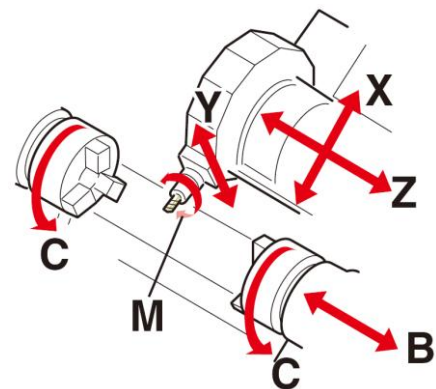
Y



S



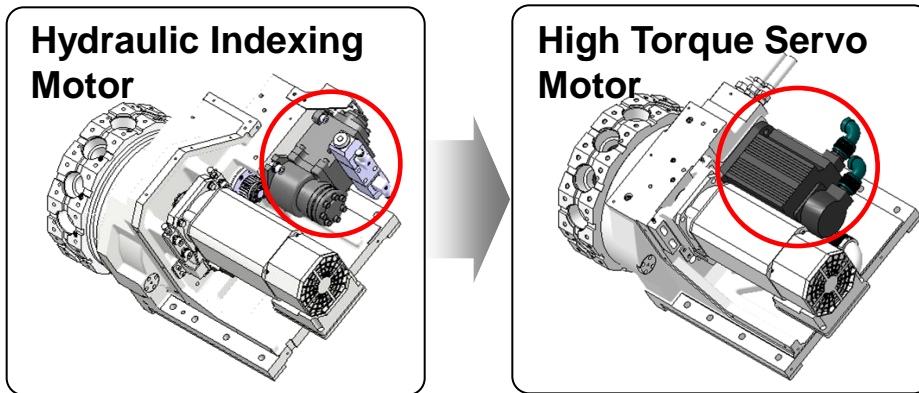
MS



SY

1 Lynx series Upgrade

New tool post with servo motor driven indexing for all Lynxes to improve reliability and productivity

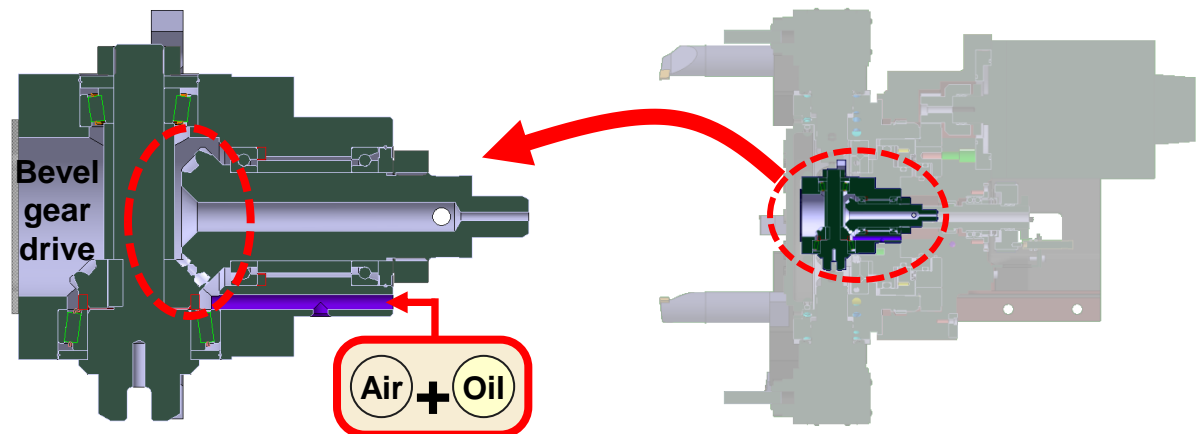


Model Group	Turret Indexing method	
	AS-IS	TO-BE
2axis	Hyndraulic type	New Servo Type
M	Old Servo Type	
S/MS	Old Servo Type	
Y/SY	New Servo Type	

Model Group	TOOL DRIVE	
	AS-IS	TO-BE
2axis	N/A	N/A
M	Old type	New Type (air+oil)
S/MS	Old type	
Y/SY	New Type	

New tool drive device for M/Y version models

- Silent driving
- Air / oil lubrication and cooling to reduce thermal growth from the milling drive train and extend the life of the drive gears

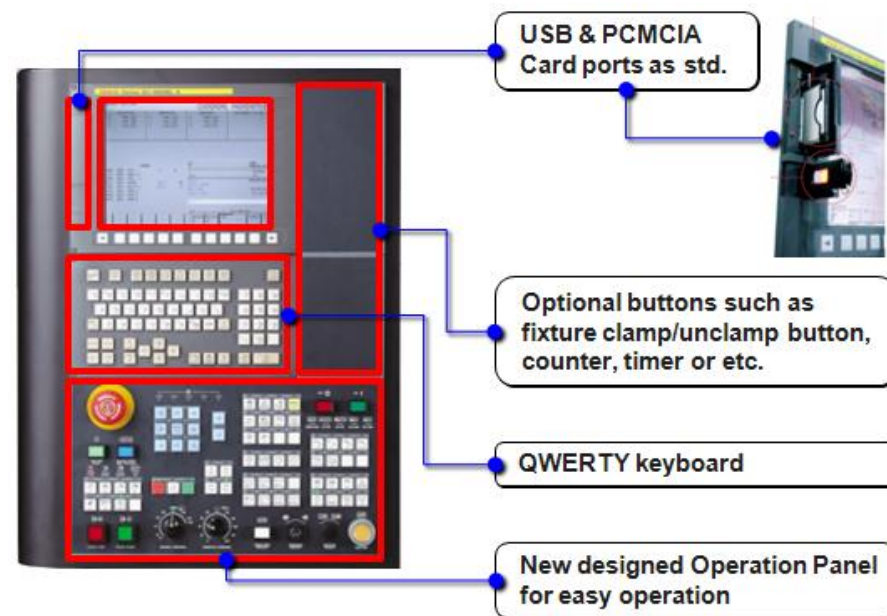


1 Lynx series Upgrade

Roller type LM guideway in all models & all axes for high rigidity & long life



New OP & Fanuc 0iTD for convenience



MODEL	LM guideway Type	
	AS-IS	TO-BE
Lynx 220/L	Ball	Roller
Lynx 220M/LM	Ball	Roller
Lynx 220LS/LMS	Roller	←
Lynx 220LY/LSY	Roller	←

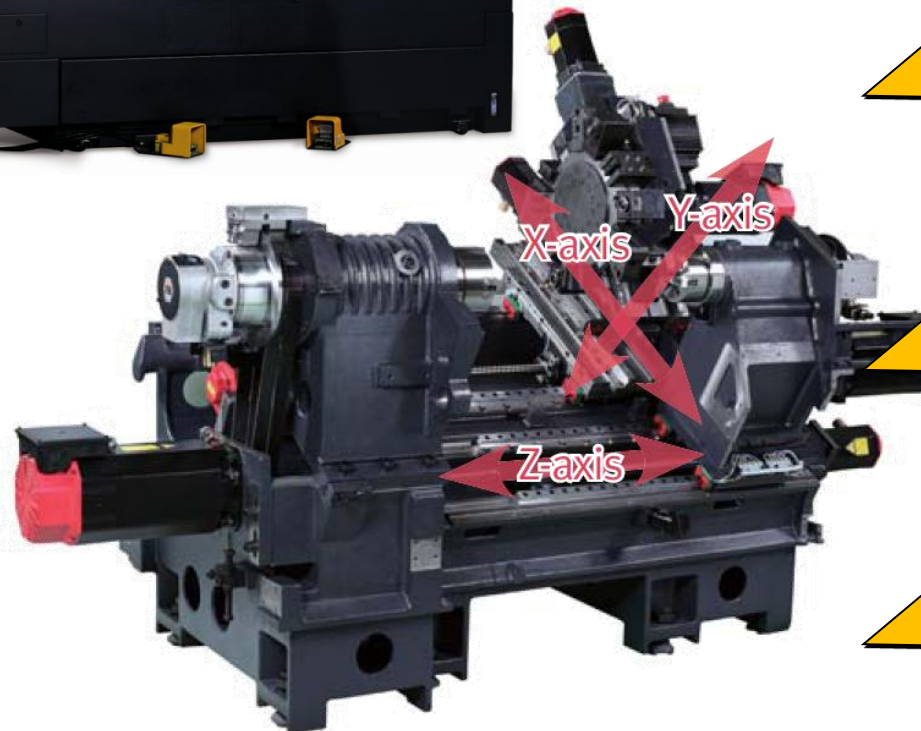
2 Lynx 220Y/LY/LSY ^{New}

Sales points...



Compact Turning Center

• New addition of Y axis machine to Lynx 220M/LM & Lynx 220LMS for customers who require higher productivity from Lynx series or more additionally competitive choice as a compact class besides PUMA Y axis machine



1 Largest Y axis travel
105(± 52.5)mm compared
to the same class

2 Roller type LM guideway in
X/Y/Z all axes for high
rigidity & long life

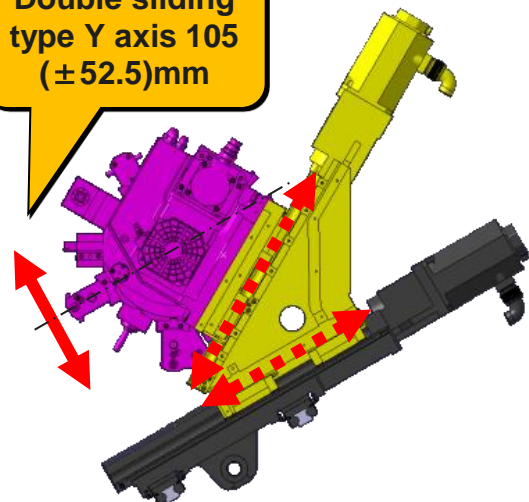
3 New OP & Fanuc 0iTD with
10.4" Color LCD & EZ-i for
convenience

1 Sales point

Largest Y axis travel 105(±52.5)mm compared to the same class

Customers can choose proper size machine and get wide machining capacity. Because Lynx 220 Y series provide various line-up and 105(±52.5)mm of Y-axis travel for off-center grooving, milling, tapping, and drilling.

Double sliding type Y axis 105 (±52.5)mm



2 bed frame (Z800/1250mm) for HTC 6"~15", Y 140mm is over spec. for HTC 6"/8" class

1 bed frame (Z560mm) for HTC 6"/8"

Y 105mm

Y 100mm

Y 102mm

Y 105mm

Y 100mm

Y 140mm

Y 105mm



6 inch

L220YA

QTN 100-II MY

ST-10Y

L220LYA

NLX1500Y TC15Y/800 B545Y

L220LSYA

QTN 100-II MSY

NLX1500SY TC15Y/1350 B545YS

8 inch

L220YC

QTN 200-II MY

ST-20Y

L220LYC

NLX2000Y TC20Y/800 B565Y

L220LSYC

QTN 200-II MSY

DS-30Y

NLX2000SY TC20Y/1350 B565YS

Roller

Roller

Ball

LM Guideway

BOX Guideway

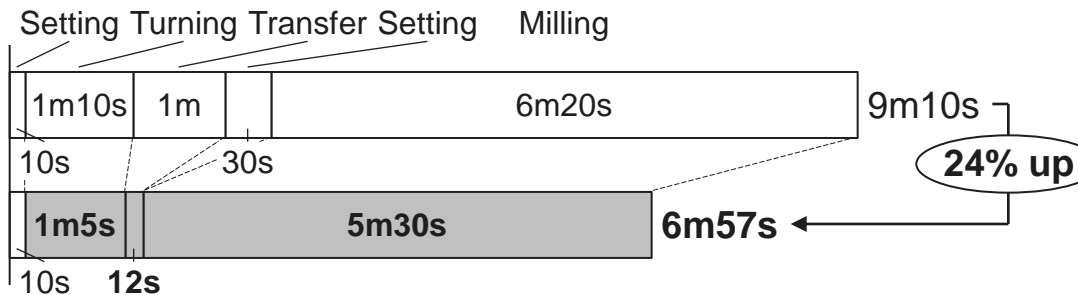
One machine to obtain high productivity & accuracy, **One set-up** to save cutting time, **One operator** to reduce labor cost



- Machinery Component
- Aluminum (AL7075) / Ø70 x 35 mm
- 16 tools

General process (TC+MC)








Lynx 220LSY



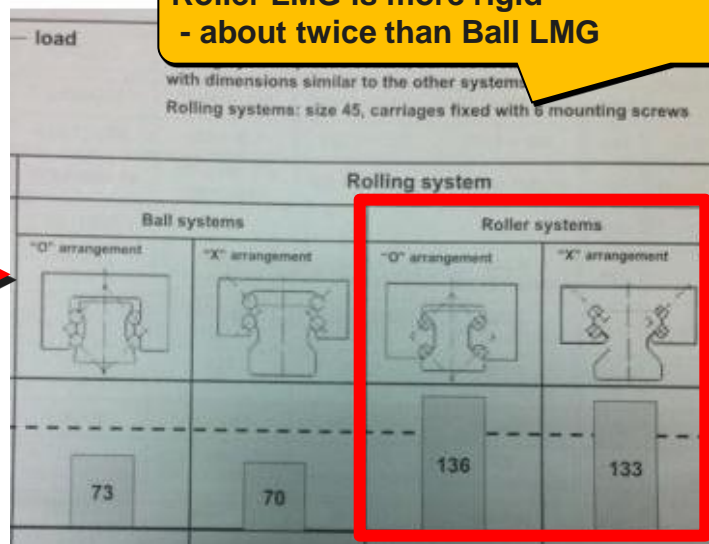
② Sales point

Roller type LM guideway in X/Y/Z all axes for high rigidity & long life



							
6 inch	L220YA L220LYA L220LSYA	QTN 100-II MY QTN 100-II MSY	ST-10Y 		NLX1500Y NLX1500SY	TC15Y/800 TC15Y/1350	B545Y B545YS
8 inch	L220YC L220LYC L220LSYC	QTN 200-II MY QTN 200-II MSY	ST-20Y DS-30Y	P2100Y P2100LY P2100SY P2100LSY	NLX2000Y NLX2000SY	TC20Y/800 TC20Y/1350	B565Y B565YS
	Roller	Roller	Ball	Box Guideway			
	LM Guideway						

**Roller LMG is more rigid
- about twice than Ball LMG**



**Roller LMG's life is longer about
twice than Ball LMG**

**Roller►
Ball►**

X axis	Service Life
RG35C-ZB	22,930(km)
HG35C-ZB	10,146(km)

**Roller►
Ball►**

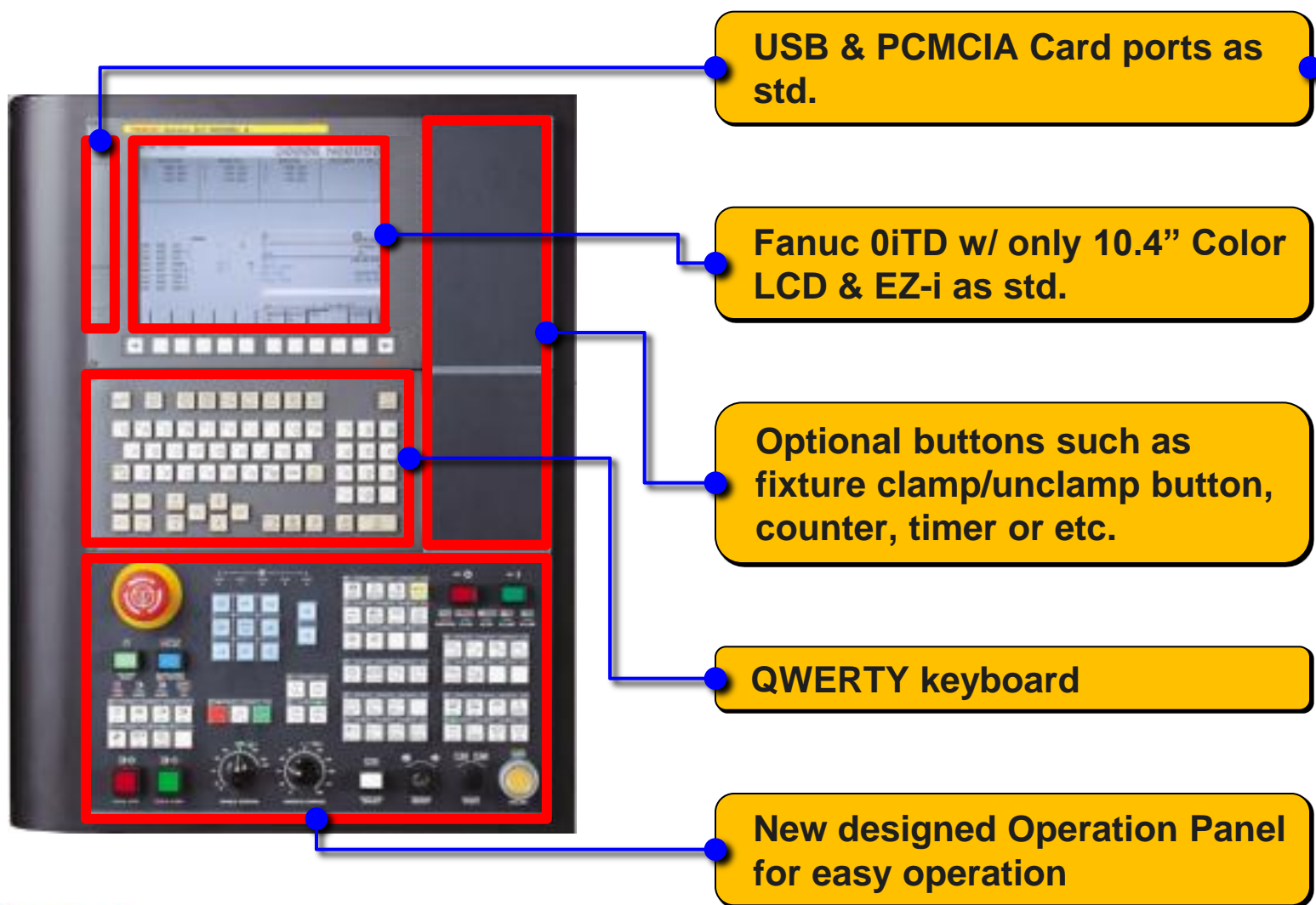
Y axis	Service Life
RG45C-ZA	88,345 (km)
HG45C-ZA	41,654 (km)

**Roller►
Ball►**

Z axis	Service Life
RG45C-ZA	116,088 (km)
HG45C-ZA	60,185 (km)

3 Sales point

New OP & Fanuc 0iTD with 10.4" Color LCD & EZ-i for convenience



1 2 3 Summary

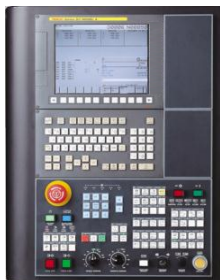
Main Spindle

- L220YA/LYA/LSYA
 - 6", 6000 r/min
 - **Bar capa. : 51 mm (2 inch)**
- L220YC/LYC/LSYC
 - 8", 4500 r/min
 - Bar capa. : 65 mm (2.55 inch)
- Belt driven Spindle
- C-Axis Control

Point

Operation Panel

- Fanuc 0iTD
- **10.4" Color LCD & EZ-i (Std.)**
- **USB & PCMCIA Card ports (Std.)**
- **QWERTY keyboard**
- **New OP**



Parts Catcher (Opt.)

- For Main or Sub Spindle

Sub Spindle (L220LSY)

- 5" Chuck (6,000 r/min)
- Belt type Spindle
- C-Axis Control

Bar feeder interface (Opt.)

Tool Setter(Opt.)

- Auto / Manual type (Renishaw)

Point

Carriage

- **Y-Axis 105 mm (±52.5 mm)**
- **Roller type LMG in X/Y axis**

Tool Post

- OD / ID Size : □ 20 / Ø32 (mm)
- Milling Turret : 12-station(24-pos.)
 - BMT45P Milling Head (Std.)
 - Max. Speed : 6,000 r/min
 - Low Heat Live Tool Drive
 - **Turret Index. Time: 0.15 sec**
 - Mazak: 0.18(6") / 0.2(8") sec
 - HAAS: 0.5 sec
 - DMG/Moriseiki: 0.25 sec
 - CMZ: 0.15 sec
 - Biglia: 0.15 sec

Bed(Std. / Long)

- L = Std. 330 / Long 550 mm
- Rigid Slant Bed (30°)

Point

Roller type LMG in Z axis

Tail Stock (L220LYA/LYC)

- **MTS(Std.) / PTS(Opt.)**
- MT4 (Live)
- * **NOT available on L220YA/YC**

